

**Amendments to the Drawings:**

The attached sheet of Drawings includes a new FIG. 1 which replaces the original FIG. 2 replaces the original FIGs 2 and previously omitted element 104 has been added.

Attachment: Replacement Sheet

Annotated Sheet showing changes.

## **RESPONSE**

This is in response to the Office Action dated January 18, 2008. FIG. 1 has been amended to include previously omitted element 104. A corrected Drawing has been provided herewith. The objection to the Specification is also noted. The Specification, including the Abstract, has been amended to correct the cited informalities. The examiner takes the position that the definition of CATVAR-F is oxymoronic because it defines a variable that does not change over some designated CCT period. The applicant submits that CATVAR-F is a variable that can change over time but does not change over some designated CCT period. Accordingly, the definition is not oxymoronic. Accordingly, the objections to the Drawings and the Specification should now be withdrawn. Claims 1, 2, 6 – 11, 16 – 18, 20 and 21 have been amended.

**The rejection of Claims 1, 9, 11 and 21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention is respectfully traversed.**

The Examiner takes the position that Claims 1, 11 and 21 recite the limitation “identifying a Start Time” and further refer to this “start time” but it is unclear whether this “start time” refers to the beginning of the inclusion of a UOA-ID into a Type.

The Applicant submits that as stated on page 13 of the specification, a Start Time “is the earliest CCT for each specific UOA-ID per Type” and on page 14 Cohort Time “means that

the Start Time is based on a defining event, which is the last date/clock time that the individual UOA-ID meets all of the eligibility criteria to be included into the population.”

Accordingly, the Start Time will be set depending on the particular point in the process. In

order to make the Claims more clear, the Start Time for the claims have been more clearly identified.

The Examiner also takes the position that the limitations in Claims 1 and 21 that refer to a CATVAR for category variable, it is unclear in the specification whether these are true variables, parameters or indices and whether they take on continuous, integer or strictly Boolean values or are used only by parsing the data.

The Applicant respectfully submits that that the dynamic CATVAR (CATVAR-D) are all Boolean variables. The term “different values” means either “1” or “0” (or other mutually exclusive codes) such as described for filling a prescription in any given time segment “1” or not filling “0.” CATVAR-D variables ,where “D” refers to dynamic, are those that may change from one time segment to another, whereas CATVAR-F, where “F” refers to fixed are those variables are fixed and do not change from one time segment to the next.

The Examiner takes the position that Claim 9 recites in the preamble a “method ... wherein an Output Expressions are generated” and then goes on to state in a limitation the phrase “determining an Outcome” but there are many outcomes and outcome expressions delineated in the claims and specification. Consequently, the Examiner believes that Claim

9 is indefinite.

The Applicant submits that Claim 9 has been amended to make the claim more clear.

In view of the foregoing, the Applicant respectfully submits that the rejection of Claims 1, 9, 11 and 21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter should be withdrawn.

**The rejection of Claims 1, 11, 21 and 23 under 35 U.S.C. 103(a) as being unpatentable over McCartney (PG-Pub 2003/0065534 A1) in view of Wong (U.S. Patent No. 5,976,082) is respectfully traversed.**

McCartney discloses a method for determining resource consumption for a subject health care provider using resource consumption information from at least one other health care provider. McCartney however does not include the specific and essential step of identifying a Start Time and forming at least one Cohort time segment based on that Start Time and then basing the entire data base structure on the unique use of calendar time to generate data based on cohort time with retrospective and prospective time segments pivoting around that start time. Thus, the process of the subject invention is nowhere taught or disclosed in McCartney. The Examiner however takes the position that forming at least one Cohort time segment based on the Start Time is shown in Wong and one skilled in the art would be motivated to modify and change the process of McCartney by

incorporating the step of forming at least one Cohort time segment based on the Start Time determined by McCartney. However, the Examiner has not provided any showing in the cited art that would provide such motivation or teaching. Further, the Examiner takes the position that Wong provides that the Start Time is the first available date of enrollment and a time window is defined to provide a timeframe from which to judge whether events should be considered in subsequent processing. Accordingly, the Examiner believes that the "time window" is equivalent to a Cohort time segment.

In contrast, the Applicant submits that the process taught in Wong is profoundly different than the process taught in the subject invention. The Applicant refers to FIGs. 6A and 6B, column 13 lines 61 -67 and column 14, lines 1 - 34 of Wong. The Applicant submits that FIG. 6A shows that the process of Wong teaches using an events window to make a prediction window. This does not provide a teaching of a process of resource allocation. Further, point "B" operates as an Index Time ("Start Time"). As stated:

"The definition of the present instant B is important. In the subject invention, two basic definitions of B were devised in order to maximize the accuracy of the prediction model. Although, as would be understood by those skilled in the art, alternative definitions of B may also be used"

Thus, in Wong the "Index Time" or Start Time is not set or specifically defined by the criteria but is arbitrary assigned by the operator. Points "A" and "C" (a point selected on how far out in time the prediction is to be made and calendar point "B" is arbitrary. Further, Wong uses statistical regression and progression models derived from data between point

“A” and point “B” to predict what will happen between points “B” and “C.” Point “B” of Wong is not set or defined as the time that an UOA-ID meets a set of predetermined conditions to be eligible for a defined population and therefore Wong does not apply Cohort time segments where each individual (UOA) can have a unique calendar time for point “B”, and therefore point “A” to point “B” (retrospective time segment) and point “B” to point “C” (prospective time segments). Thus, Wong teaches selecting a population with a CHF diagnoses and beginning and an end calendar time period. Then Wong teaches the selection of a point between the beginning and the end that is arbitrary (e.g. six months before the end date) and has nothing to do for example with the diagnoses. Then within the time from the beginning to the arbitrary point between the beginning and the end, he seeks information important for statistical prediction of events between the beginning point and arbitrary mid-point; and the arbitrary mid-point and the end point where the calendar time segments are the same for each person. The present invention teaches a central starting point based on criteria (or criterion) and using that as a central point where both prospective and retrospective time segments can be generated for each UOA in what is called “cohort time.”

Claim 1, as amended provides:

A method of improving resource allocation comprising the steps of:  
identifying at least one criteria;  
Identifying sets of information wherein each set of information includes a UOA-ID, a CCT, a CATVAR and a VAR Value;  
grouping each UOA-ID into an appropriate Type;  
identifying a Start Time wherein each UOA-ID has met said at least one criteria;  
forming at least one prospective or retrospective Cohort time segment for each UOA-ID based on their Start Time;

placing the UOA-ID into the appropriate time segment;  
calculating an eligibility score for each UOA-ID for each time segment;  
calculating an Eligible Adjusted Variable Value; and  
generating at least one Output Expression is subdivided by  
each CATVAR.

Claim 11, as amended, provides:

A method for improving resource allocation using a plurality of sets of information, the method comprising the steps of:  
for each set of information, identifying an UOA-ID, a Type, a CCT and a VAR Value;  
grouping each UOA-ID into an appropriate Grouper;  
identifying a Start Time wherein said Start Time is the earliest CCT for each specific UOA-ID per Type;  
identifying a time segment duration;  
forming time segments based on the Start Time wherein each UOA-ID meet a certain eligibility criteria;  
adjusting and standardizing each VAR Value to create AdjVAR Values;  
placing each AdjVAR Value into the appropriate time segment;  
calculating an eligibility score for each UOA-ID; and  
generating Output Expressions per CATVAR values which are compared to each other.

Claim 21, as amended, provides:

A system for use by a user in improving resource allocation comprising:  
A central processing unit for operating software effective for performing the method of:  
identifying sets of information wherein each set of information includes an UOA-ID, a CCT, and a VAR Value;  
grouping each UOA-ID into an appropriate Type;  
identifying a Start Time wherein each UOA-ID meets all of the eligibility criteria to be included into the population;  
forming at least one Cohort Time segment based on the Start Time;  
placing the VAR Value into the appropriate time segment;  
calculating an eligibility score for each UOA-ID for each time segment;  
calculating an Eligible Adjusted Variable Value; and  
generating Output Expressions per CATVAR values which are compared to each other.

Claim 23, as amended, provides:

A system for optimizing resource allocation whereby Output Expressions are produced comprising a representation, said representation is selected from the group consisting of a showing EAV trends of a particular Population having an eligibility criteria and formed of individual units, said trends are expressed in Cohort time segments based on a Start Time wherein each individual unit meets all of the eligibility criteria to be included into the Population; a showing NNT trends of a particular Population; said trends are expressed in Cohort time segments per CATVAR values which are compared to each other.

As described in the subject application, point “B” would be defined as the Start Time which is strictly defined as a date that the individual UOA-ID meets all of the eligibility criteria to be included into a population. Accordingly, the model of the subject application using Cohort Time and real data not requiring the use of statistical regression and progression modeling, instead it can clearly use empirical data to examine the population trend both before and after the index calendar time start date of each person, now transformed into a common “cohort time” date for all persons in the population. Thus, the process of the subject application is different than that of the cited references and there is no teaching or motivation in the cited references that would teach the combining the two references along the subject application to arrive at the claimed invention.

In view of the foregoing, the rejection of dependent Claims 1, 11, 21 and 23 under 35 U.S.C. 103(a) as being unpatentable over McCartney in view of Wong should be withdrawn.

**The rejection of Claims 2, 3, 4 – 10, 12 – 20, and 22 under 35 U.S.C. 103(a) as being unpatentable over McCartney/Wong is respectfully traversed.**



The Applicant submits that Claims 2, 3, 4 – 10 are dependent on independent Claim 1; Claims 12 – 20 are dependent on independent Claim 11 and Claim 22 is dependent on independent Claim 21. The Applicant restates its arguments made hereinabove with respect to independent Claims 1, 11 and 21. Accordingly, the rejection of Claims 2, 3, 4 – 10, 12 – 20 and 22 should be withdrawn.

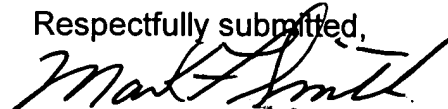
**SUMMARY:**

The Applicant respectfully submits that he has developed a new and novel method of improving resource allocation by management. The mere fact that one may select the particular elements or modify such elements disclosed in the prior art to arrive at the claimed invention does not support a claim for obviousness unless there is some motivation to modify the references. Such a motivation cannot be found in the Applicant's own specification, but must be shown by evidence that *is clear and particular*.

In view of the foregoing remarks, it is respectfully submitted that all of the Claims now pending are now allowable over the art of record. Reconsideration of all claims now in this application is respectfully requested.

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Respectfully submitted,



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